

## II

# VASOSTOMY AND ITS PLACE IN THE TREATMENT OF EARLY URETHRITIS

### DISCUSSION

THE CHAIRMAN said the Society was deeply indebted to Mr. Kidd for his most interesting paper. He hoped it would stimulate a most energetic discussion ; it was, it would be agreed, a novel way of tackling an old problem.

Mr. PEART said he had been exceedingly interested to hear Mr. Kidd's paper, particularly as he was anxious to hear of other results than his own. He had performed the procedure of vasostomy on two early cases, and the last of those was twelve months ago. In both of them his results had been dramatically good. One was only seven days after infection, and it had shown signs of epididymis trouble even then. He had been doing irrigation for two days before that. He was glad that the epididymitis was not caused by his manipulations ; it cleared up completely in three days, and the gonococci disappeared on the day following the operation. He kept the man under observation until the third day, and there were no signs after that. A month later the man gave himself a severe alcoholic test, but there were no signs of recurrence, nor since.

The other was a more serious case. This man had been ill three or four weeks with acute gonorrhœa ; a copious discharge, a temperature of 101° F., and very acute epididymitis. The speaker was called in in consultation, and he was told that a week before someone had diagnosed the presence of a prostatic abscess. He evacuated the epididymis, and made the injection only on the side affected. On the following day the temperature became normal, all pain had disappeared, as also all trace of discharge. He was allowed to get up at the end of a week, and since then there had been no sign of further trouble. A month later there were no evidences of gonococci.

In both those cases he used a much stronger solution than did Mr. Kidd, namely, 20 per cent. of argyrol, and

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the added strength might have expedited the miraculous cure. There was a good deal to be said for the treatment, and if it were to be adopted generally, especially for seamen, it would get over the difficulty of arranging for the continuance of treatment on board ship. In the two cases he mentioned he did not use irrigation or any other treatment after he did the injection, and in both he did only one side. He selected the side on which there was a tender epididymis; in one, the more severe, he had to inject on the side where the epididymis abscess was. He injected one side, and if the result was satisfactory he did nothing further; if it did not clear up, he did the other side.

Mr. F. FOWLER WARD said he had been very pleased to hear Mr. Kidd's paper. He had done vasostomy in many chronic cases. The operation he would call tricky rather than difficult. He had exposed the vas and punctured with a hypodermic needle. Where possible he had no hesitation in getting these men in and doing the operation. He had not kept the patient in bed in every case; some he had sent home to stay in bed. He used protargol; there was pain in the penis three minutes afterwards, and stuff looking like coffee was passed. He was sure this operation was really good.

Mr. HUGH LETT agreed that some cases of posterior urethritis were not necessarily the result of direct spread along the mucous membrane, but might be the result of extension of the infection by the lymphatics. In that way the gonococci reached the capsule of the prostate and tissue round the vesicles, where they lay dormant for a time, and ultimately caused the secondary condition. If this view of the pathology were correct, the operation of vasostomy with the injection of collargol should be a valuable method of treatment in certain cases. Colloid silver was more effective than other antiseptics because of its power of penetration.

The speaker thought that the collargol produced the effect noted in these cases in two ways, firstly by remaining for some time in the vesicles, as in the case mentioned in which a seminal emission occurring a week after vasostomy was stained by the solution, and secondly by penetrating the vesicles, and extending into the surrounding lymphatics. The operation, however, was a delicate one, and should not be practised indiscriminately in any

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type of case, nor should it be carried out by those whose experience of practical surgery was very limited. Some of the disadvantages and complications of the operation had been alluded to, the most important being the danger of stricture formation at the site of the operation. If this occurred on both sides, the inevitable result would be sterility. The risk of this lamentable sequela might be small in skilled and experienced hands, but if it should occur great unhappiness and misery might result. On this ground alone he would feel great hesitation in recommending double vasostomy except in very severe cases, until by the collation of numerous statistics it could be proved that this danger was practically non-existent.

In conclusion he congratulated the Society on Mr. Kidd's able and interesting paper.

Mr. V. E. LLOYD said that recently he had been injecting vesicles in the post-mortem room. He exposed the vas in the usual way, and made an injection of methylene blue. Immediately after injecting, he took out the bladder, prostate and vesicles and the posterior urethra, all in one, and exposed the vesicles by dissection at the back. It seemed very difficult to fill the vesicles, and he thought that was due almost entirely to the fact that in the dead body the sphincters were patulous. He was struck by the fact that the ampulla of the vas was thoroughly injected with methylene blue, and the diverticula were full of methylene blue; and he thought, from that, possibly some of the cases which reacted so well in the series mentioned were more infections of the ampulla of the vas rather than of the vesicles themselves. Clinically, he had thought that many of the cases which were regarded as acute inflammation of the seminal vesicles were chiefly inflammations of the ampulla of the vas. It was difficult to decide that when the inflammation was acute, but on subsidence one could sort out the cases. In some cases, he thought, it was only the ampulla which was grossly affected. He had not taken skiagrams of these vesicles, but some had been published, showing a moderate distension in some, in others a good deal of distension. Skiagrams had also been published in which these parts had been filled with lipiodol. But the vesicles when stretched out were very long and tortuous, and he thought it was difficult to fill the whole of the vesicle

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with colloid silver, or any fluid injection, through the vas. The suggestion that colloid silver penetrated the tissues, acting as a barrier to further spread, was a very important one in understanding the pathology, and the results of treatment by the injection of colloid of silver. He hoped the method would be taken up and further results would be tabulated for instruction.

Mr. G. E. NELIGAN said he had only done the operation three times, on chronic vesicles and prostates which were not cured by other means. If this operation was going to be advocated in every case of posterior urethritis and prostatitis, and even of vesiculitis, much danger would result. The only justification for doing the operation was that a large number of results might show the dangers. It seemed astounding that in acute inflammation by injecting collargol one completely eliminated everything, especially as one was still left with acute anterior urethritis. Why did that marvel take place? The silver preparations were wonderful if their injection could eliminate gonococci from vesicles and prostate, and even in acute epididymal orchitis; how the material got down to the latter from above, he did not know. Why not put 10 per cent. collargol into the urethra?

He did not wish to disparage the operation, but it was a treatment which should be looked at with some suspicion. He agreed with Mr. Hugh Lett that there was a danger of stricture resulting, especially considering the narrow lumen of the vas. The vast number of cases of gonorrhœa cleared up without any final signs, and without making the patients sterile, and there was no question that sterility in a man was a very serious matter. There must be a careful choice of cases; it was almost like the Minister of Health talking of the cures by radium, and unless cases were chosen carefully, the case would be almost like that of radium in ten years' time.

Mr. HARKNESS said that in acute posterior urethritis, if one started with local irrigations for forty-eight hours and gave very large doses of sandalwood oil, one seldom failed to stop the symptoms.

Mr. JOHN ADAMS said this was an original paper, but he would add a postscript to what Mr. Neligan said as to the material getting into the crypts and corners. Mr. Kidd stated that in some of the cases he operated upon the gonorrhœal arthritis was very much improved. He,

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the speaker, would like to know how this was brought about. Frequently a shoulder condition was difficult to cure. How was this done by injecting the vas?

Dr. B. B. SHARP asked what "S.U.P." meant. He could not claim to have had experience of vasostomy. He had hoped that a panacea had been found for all cases of the disease, but he now realised that, up to the present, such a panacea had not been reached.

He was inclined to agree with Mr. Neligan and others; he would be rather diffident about employing the operation, even if he had acquired the technique, except in one circumstance, namely, chronic relapsing vesiculitis, which was one of the bugbears of the specialty. Other cases he found cleared up in due course if sufficient patience and persistence were brought to bear, and without undue risk to the patient's future. Still, he hoped more cases would be dealt with by this operation, so as to work out the method, as the disease varied so much in different individuals. Considering the case of the man mentioned who had hæmaturia, strangury, acute posterior urethritis and a temperature, and did not permit local treatment, he had recently had such a case, and he sent him home to bed, giving alkaline medicine, with belladonna suppositories, but no local treatment for a fortnight. At the end of that time the patient came back with only a slight discharge. Then a week of irrigation effected a cure. Two months later, though there was no further treatment, stringent tests were passed. This supported his view that some of the acute cases got well quicker than the chronic ones. Patients who had a mild attack of gonorrhœa seemed to have no "kick," and went on relapsing, whereas many patients with the disease in acute form cleared up rapidly. Therefore it could not be concluded from one case that it would not have cleared up if Mr. Kidd's operation had not been done. There was the anterior urethritis which was not very severe and cleared up on irrigation, and one thought it was cured, as the urethroscope showed nothing wrong, yet the patient came in five or six days with a gonococcal discharge, and one could not find the focus. Often those cases had no posterior urethritis at all, and he did not see how colloidal silver injected into the vas could be expected to do much good; seeing that *per urethram* it was not, in his hands, very efficient.

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Colonel E. G. FRENCH referred to a patient whom, three years ago, he had to send to Paris to finish his treatment, namely to Dr. Luys. That gentleman performed vasostomy, and the patient got well in about a week. He had since married and had two children in three years, which of course negated any idea of sterility.

With regard to treatment of chronics, he, the speaker, commanded the hospital in France after Mr. Kidd left it. There were many cases of gonorrhœa on hand in that hospital, and if anyone had known the technique of vasostomy, the men could have been sent back to the Line in one-sixth of the time. Moreover, there would have been less gonorrhœa in France after the war.

He agreed with Mr. Lett that the operation should be confined to certain cases, because if done indiscriminately it would be a serious matter. Still, he did not think some married men who had had two or three children would mind very much if cure of their gonorrhœa did involve sterility.

THE CHAIRMAN endorsed the word of caution concerning the operation which had been uttered by more than one speaker. He had seen some results which definitely were not good following vasostomy by enthusiastic workers who had not previously taken the trouble to become familiar with the technique.

He also wished to record his appreciation of the services which Mr. Kidd and Mr. Peart had rendered in putting before the profession new and stimulating ideas. It was possible that such an operation was applicable to certain cases, but practitioners should not rush in and try it on every fresh case they got.

He asked Mr. Kidd to reply, and then to be good enough to exhibit his instruments.

MR. KIDD, in reply, thanked all who had spoken for the way in which they had received his paper. It was read with diffidence, as he was doubtful whether it was wise to bring the subject forward. But he reflected that the meetings of this Society were instituted so as to enable new ideas to be brought forward for criticism. Mr. Peart had hit upon a very interesting idea and he, the speaker, had tried to test this idea by a few observations. When one injected colloid silver into a vesicle from above, in a certain number of cases there resulted an amazing sterilisation of the whole tract from the gonococcus. The

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explanation of such a happening was not complete, but this need not prevent us from making use of the fact. Mr. Peart had brought before the profession a new idea, and it needed ventilating.

He felt much obliged to Mr. Hugh Lett for having come and stated his views. He felt, with that gentleman and with Colonel Harrison, that it was the risk of sterility which made it difficult to make up one's mind to advise operation ; it if were not for that risk there would be much less hesitation. He wanted to encourage surgeons who knew the technique and had the material to try out the operation on suitable cases and bring forward their results.

During the discussion Mr. Peart had brought forward a valuable suggestion, namely, that in future cases it was well to try doing one side first ; in any case, that would very greatly reduce any risk there was of producing sterility. So far, he, the speaker, had operated on both sides. It might turn out that operation on one side only would be as effective as operation on both sides. Experience alone could decide.

Much work on the question of sterility had been done in America. Smith, of Kansas City, followed up 100 consecutive cases and had their semen tested. He proved that in 98 of those 100 the semen was fertile.

He was interested in Mr. Fowler Ward's statement that he had found the operation so good for chronic cases. Also that he used local anæsthesia. It was desirable to learn to use local anæsthesia as it was more satisfactory. He believed vaso-puncture was being increasingly carried out in America in preference to vasostomy. Mr. Schranz, of the Genito-Urinary Company, had experimented with different needles on testicles in the post-mortem room, and the outcome was an ingenious needle with a conical taper. The lumen of the vas varied so much in calibre, but by using this needle it was possible to ensure that no leakage took place during the injection, such as might lead to perivasitis and stricture.

Mr. Lloyd referred to experiments with methylene blue, but similar experiments had been done long ago by Belfield, who had studied the subject for years. He had shown that the vesicle was not such a complicated structure in life as it appeared to be when dissected out in the post-mortem room. By injecting towards the vesicle

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from the vas during life, the sphincter of the ejaculatory ducts contracted forcibly so that the material injected was projected backwards so as to fill up the vesicle as well as the ampulla. It was thus possible to fill the vesicle because of sphincter action in the ejaculatory ducts. The results of injections were not the same when done on the cadaver.